

REMARKS/ARGUMENTS

The final Office Action of April 18, 2008, has been carefully reviewed and these remarks are responsive thereto. The Office Action does not mention currently pending claims 35-41. Claims 35-38 were added in the Response mailed April 17, 2007. The indicated allowability of claims 6, 19 and 32 as set forth in the Office Action mailed July 5, 2007, was withdrawn in view of newly discovered reference to Magret et al. (U.S. Patent No. 6,988,146). Claims 39-41 were added in the Response mailed January 31, 2008. As noted in the Response mailed January 31, 2008, claims 39, 40, and 41 correspond to previously cancelled claims 6, 19 and 32. Claims 1-5, 6-10, 12-18, 20-25, 27-31, and 33-41 are currently pending.

Claim Rejections Under 35 U.S.C. §103(a)

In the final Office Action mailed April 18, 2008, claims 1-4, 9-11, 29 and 34 were rejected under 35 U.S.C. 103(a), as being unpatentable over Willars et al (2003/0013443) in view of Magret et al (6,988,146) and further in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570).

Claims 5 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) in view of Chambert (U.S. Patent No. 5,499,387).

Claims 7, 8, 30 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) in view of Kennedy, III et al (U.S. Patent No. 5,966,658)

Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) in view of Igarashi (U.S. Patent Pub. No. 2001/0053694).

Claims 14-17, 22-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) in view of Funato (U.S. Patent Pub. No. 2003/0087646).

Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) and Funato in view of Chambert.

Claims 20 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) and Funato in view of Kennedy.

Claims 27 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Willars and Magret in view of newly discovered reference Abrol et al. (U.S. Patent Publication No. 2002/0068570) and Funato in view of Igarashi.

Independent claim 1 claims:

1. A method comprising:
 - receiving from a first access router in a first network by a second access router in a second network that serves a different service area a request for authorization inquiry including an identifier that identifies a mobile terminal that is a candidate for a handoff operation;
 - causing a database to be queried via a server to determine whether the second access router is authorized to accept a handoff operation for the mobile terminal;
 - in response to determining that the mobile terminal is authorized to be handed off to the second access router, performing a handoff operation from the first access router to the second access router; and
 - in response to determining that the mobile terminal is not authorized to be handed off to the second access router, inhibiting the handoff operation from the first access router to the second access router.

As recognized in the Office Action mailed April 18, 2008 (at p. 3), Willars fails to disclose “querying the database on the basis of membership plan associated with a subscriber of the mobile terminal.”

In addition, Willars fails to teach or suggest a first access router in a first network and a second access router in a second network as claimed in the method of claim 1. The Office Action mailed January 18, 2008, states that Willars discloses a Serving Network, which reads on

a first network, and that a Drift Network, which reads on a second network. Contrary to this assertion, Willars makes no mention of a Serving Network or a Drift Network, but rather discusses a Drift *Controller* and a Serving *Controller*. In fact, Willars teaches a single radio access network 14 having one or more radio network controllers (SRNC & DRNC). Page 4, ¶ 48; *see also* FIG. 1A. The multiple network controllers may help control radio resources and radio connectivity (p. 1, ¶ 6), but do not suggest or imply the existence of other networks, as asserted by the Office Action on pp. 2-3. That is, Willars only uses a single network. As such, Willars fails to teach or suggest a method of handing off a mobile terminal from a first network served by a first access device to a second network served by a second access device. Willars does not teach or suggest “receiving from a first access router in a first network by a second access router in a second network that serves a different service area a request for authorization inquiry including an identifier that identifies a mobile terminal that is a candidate for a handoff operation” or “causing a database to be queried via a server to determine whether the second access router is authorized to accept a handoff operation for the mobile terminal.” Willars does not even mention the word, “server,” let alone a method that comprises “causing a database to be queried via a server ...” as claimed in claim 1.

Other cited art, such as Magret, do not remedy the deficiencies in Willars. Magret discloses a single “access router” attached to a plurality of base station routers wherein each base station router is connected to one or more base stations for communicating with mobile nodes in a coverage area of the base station. *See* Claim 1 of Magret. Magret further discloses that a base station informs a base station router of the presence of a mobile entering the base station’s coverage area by sending a mobile node advertisement message to a base station router. Magret, Col. 10, lines 20-25. Thus, Magret does not disclose “receiving from a first access router in a first network by a second access router in a second network that serves a different service area a request for authorization inquiry including an identifier that identifies a mobile terminal that is a candidate for a handoff operation” or “causing a database to be queried via a server to determine whether the second access router is authorized to accept a handoff operation for the mobile terminal.”

Thus, even if a combination of Willars and Magret and Funato, or Willars and Funato is deemed proper, the combination does not result in the claim 1 as amended.

The final Office Action mailed January 18, 2008 (at p. 4) acknowledges that the proposed combination of Willars and Magret fails to teach a first and second access router.

Abrol does not meet the deficiencies in Willars and Magret. Abrol does not teach a first and second access router as claimed in claim 1. Abrol does not even use the word "router." Abrol teaches (at paragraph 35 cited in the Office Action) that when a mobile station (MS) being served by Packet Data Serving Nodd PDSN₁ 14 leaves a first coverage area 6 of a Radio Access Network (RAN_A) 32 and enters a coverage area 8 of a RAN_B 34, the MS decodes overhead messages broadcast by the base stations in RAN_B 34. Abrol teaches that RAN_B overhead messages contain a different PZID than that broadcast by base stations in RAN_A. When the MS 2 detects the change in the PZID, it sends a "fake origination" to RAN_B 34. There is no teaching in Abrol of communication between RAN_A 32 and RAN_B 34. Abrol does not teach "receiving from a first access router in a first network by a second access router in a second network that serves a different service area a request for authorization inquiry including an identifier that identifies a mobile terminal that is a candidate for a handoff operation." Nor does Abrol teach "causing a database to be queried via a server to determine whether the second access router is authorized to accept a handoff operation for the mobile terminal."

The claimed invention avoids the need for the "fake origination" required in Abrol. Even if the proposed combination of Willars, Magret and Abrol was proper, it does not result in the claim 1 because Abrol requires "fake origination" from a mobile station to a Radio Access Network. The present invention provides methods and apparatus for pre-authorizing handovers among access routers in communication networks. The present invention solves the problems (such as wasted resources and frequency spectrum, and delayed handover processing) encountered in prior methods wherein a mobile terminal is handed over to a new access router, and then an authorization process ensues to determine whether the mobile terminal is authorized to roam into a new network. See paragraphs 11-15 of the specification of the present application as originally filed.

There is also no suggestion to combine the teachings of Willars with either Magret and/or Abrol and modify them in a manner that results in claim 1, except using Applicant's invention as a template through a hindsight reconstruction of Applicant's claims. Such hindsight reconstruction is improper under *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (cited with approval in *KSR*).

The dependent claims depending from base claim 1 are patentable over a proposed combination of Willars, Magret and Abrol for at least same reasons that claim 1 is patentable and for the additional features recited therein. The other cited references do not remedy the deficiencies in a proposed combination of Willars, Magret, and Abrol.

Independent claims 14 and 29 have similar features as claim 1. The dependent claims depending from base claim 14 or 29 are patentable over a proposed combination of Willars and Magret and/or Funato for at least same reasons that claim 1 is patentable and for the additional features recited therein. The other cited references do not remedy the deficiencies in a proposed combination of Willars and Magret and/or Funato.

While Funato discloses forwarding of data between networks, Funato is silent as to a method comprising "receiving from a first access router in a first network by a second access router in a second network that serves a different service area a request for authorization inquiry including an identifier that identifies a mobile terminal that is a candidate for a handoff operation" or "causing a database to be queried via a server to determine whether the second access router is authorized to accept a handoff operation for the mobile terminal."

The Office Action asserts with respect to the rejection of claims 14-17, and 22-26 that it would have been obvious to a person of ordinary skill in the art to modify the teachings of Willars and Magret in view of Abrol in view of Funato in order to transfer the functionality of mediating a handover processing to the access router which in turn optimizes the system by preventing use to (sic, of) radio resources for handoffs. There is, however, nothing in Willars,

Magret, Arbol, or Funato that indicates that one of ordinary skill in the art would have recognized such a proposed combination or the benefits thereof. The Office Action fails to provide articulated reasoning and rationale underpinning to support the legal conclusion of obviousness. Such a rejection cannot be sustained.

CONCLUSION

All rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance, and respectfully requests prompt notification of the same. If there are any questions, the examiner is invited to contact Applicants' undersigned representative at the number noted below.

Respectfully submitted,

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